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ABSTRACT

Human relations training, as a method of teaching empathy, is a relatively recent concept in the health care field. To determine the value of human relations training for associate degree nursing students was the objective of this report. Sophomore nursing students were exposed to human relations training, growth group or transactional analysis sessions after the administration of a standardized test of empathy, the R A-E. Following the group experiences, they were retested with the same instrument. An analysis of variance was used to determine whether or not human relations training was more effective than other group processes in the development of empathy. The F-ratio was significant at the 0.05 level. T-tests between all means indicated that mean R A-E changes between Experimental Group A pre to post test were of statistical significance. (Author)

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AN EVALUATION OF EXPERIENTIAL METHODS TO INCREASE EMPATHY IN ASSOCIATE DEGREE NURSING STUDENTS

APPLIED EDUCATIONAL RESEARCH AND EVALUATION

by

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ABSTRACT

Human relations training, as a method of teaching empathy, is a relatively recent concept in the health care field. To determine the value of human relations training for associate degree nursing students was the objective of this project.

Sophomore nursing students were exposed to human relations training, growth group or transactional analysis sessions after the administration of a standardized test of empathy, the R A-E. Following the group experiences, they were retested with the same instrument.

An analysis of variance was used to determine whether or not human relations training was more effective than other group processes in the development of empathy. The F-ratio was significant at the 0.05 level. t-tests between all means indicated that mean R A-E changes between Experimental Group A pre to post test were of statistical significance.

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I. STATEMENT OF THE PROBLEM

The purpose of this investigation was to explore one of the ways in which associate degree nursing students might obtain and increase certain interpersonal skills. The skill looked at was empathy, while not the only component of an interpersonal relationship, certainly one of the most basic. Also investigated was the effect of a short term (six hours) highly structured human relations training program on empathy skills of students who were concurrently practicing interpersonal skills with persons experiencing problems in life adjustment. The ongoing or traditional methods of increasing empathy in these students which have been studied rather sketchily with non-definitive results and implications were also re-examined in the light of a newer, more specific investigatory tool. Was there a difference in empathy skills between nursing students who have participated in human relations training and those exposed to other group training programs?

II. HYPOTHESIS

The relationship of the independent variable, treatment in the form of human relations training, and the dependent variable, test scores on a standardized measure of empathy were studied as well as comparisons of test scores pre and post-treatment. It was hypothesized that there would be significantly greater increase in empathy in participants in human relations training than in participants of other group training programs.

III. BACKGROUND AND SIGNIFICANCE

The rationale for carrying on this project was approached through the exploration of two major viewpoints. The first deals briefly with the growing dissatisfaction with health care services and the providers of such and some of the means to remedy the dissatisfaction. The second and of primary importance to the investigator relates to the search by nursing faculties to find more effective ways of teaching human relations skills to nursing students in such a manner that they become a more permanent part of the student's repertoire. Both ideas were explored as the systematic approach to each denotes the enormity of the problem.

Legal suits against health care personnel proclaiming negligence are increasing in many communities. Recall of recent newspaper headlines citing the upward trends in malpractice insurance for both institutions and private persons indicate the degree to which recipients of health care are voicing their disapproval of the treatment they receive. On the surface these complaints reek of negligence in technical skill. Yet, evidence indicates other factors are operational.

Bernzweig[1] implies that the growing malpractice problem is primarily a human relation problem, with the malpractice suit being tangible proof of the terminal breakdown in a progressively deteriorating physician-patient or nurse-patient relationship. The implication in this instance is that there have been a series

of prior incidents leading to growing antagonism between the patient/client and physician or nurse whom he eventually sues. On the other hand, the physician or nurse who has won the admiration and respect of the patient is rarely sued, even when something goes wrong in the treatment process. Bernzweig further elaborates that instructional programs designed to deal with ways of establishing and maintaining effective nurse-patient relationships primarily through the use of techniques of human relations training employed by behavioral scientists, be incorporated into basic nursing curricula.

Improvement in the quality of nursing care necessitates an understanding of the human relationships involved, according to Dye[2]. In order to achieve this goal the nurse needs sufficient training and skill in interpersonal dynamics to initiate and facilitate genuine communications with patients and staff.

The implications for a well developed program of empathy training extend beyond the scope of an academic curriculum. Dr. Mary Elizabeth Milliken[3] in her foreward to a human relations development manual states:

> "An interaction between two human beings, one of helpee, is the essence of the health practitioner-client relationship. Yet, too often, health professionals become locked into a restricted perception of their roles and responsibilities. They are faced with continuous flow of research findings, equipment modifications, technological advances. . . ., rules and regulations emanating from federal and state legislation. They become prisoners of the policies, procedures, constraints, problems, pressures, and conflicts inherent in the health agency settings of the technological society.

> The client unwittingly, becomes part of the problem, rather than the raison d'etre of the health professions. Thus the impact of the knowledge explosion on the health field, combined with changing social policy which mandates that health is a basic right of all, rather than a privilege, has been in the direction of dehumanization.
>
> The effects of this trend are seen in the high attrition rate among health workers and in expressed public dissatisfaction with the health service system. Reversal of this trend, to restore the humanistic base for health services is an urgent necessity."

Dr. Milliken goes on to state:

> "Human relations skill training has the potential for enriching the career experiences of health practitioners, while concurrently restoring the client to the central focus of health service. Through an effective helper-helpee relationship, the health professional has the opportunity to 'meet the needs of the patient' on a personalized empathetic basis."

Dr. Milliken's statement is oriented toward the health worker already employed. The application of the same ideas seem appropriate to the student involved in the educational process of becoming a health worker.

Recently the investigator participated with nursing service employers representing major health care agencies in Volusia County in an open discussion of the skills needing improvement in the new graduates of the associate degree nursing program at the Daytona Beach Community College. The overwhelming area of deficit agreed upon was the inability to communicate with patient/clients. Further exploration of the topic yielded responses such as "they can't handle difficult interpersonal relations, etc."

The nursing educators taking responsibility for the prepar-

ation of these new graduates are realizing the problem exists. No longer can it be assumed that because in the curriculum the student is exposed to behavioral concepts, psychology, communication techniques, and the therapeutic relationship and has the opportunity to apply the principles of each under supervision, that he/she has learned how to use them adequately. It is adamant that more effective teaching strategies be adopted and more efficient evaluation methods be utilized in the entire area of human relations. This position is supported by many in the health care field, Gazda, Walters, and Childers[4], Kron[5], Kalish[6], Dye[7].

Traditional experiences for nursing students at Daytona Beach Community College have included group counseling sessions, the goals of which ultimately were to increase self-confidence, self-awareness, and understanding of others. The feeling and anticipation on the part of the faculty and counselors involved was that students would gain interpersonal skills which would be transferable in other situations especially the work world. One of these skills would be empathetic responses toward patients/clients, co-workers and supervisors. It is apparent that the behavior changes hoped for did not in fact take place, and that a more systematic approach is necessary.

At the core of the interpersonal process is empathy, a quality which can be learned and is measurable. Empathy is described by Kalish[8] as the ability to enter into the life of another person, to accurately perceive his current feelings and

their meanings. To be useful, empathy must be communicated verbally and non-verbally so that the patient experiences the feeling of being understood.

Some persons possess empathy intuitively, most can increase empathy skills through a systematic program of training. The technology for delivering the training has been developed by the behavioral scientists. It is now appropriate that this technology be used in the health care fields, more specifically in the education of nursing students.

IV. DEFINITION OF TERMS

For the purpose of clarifying terminology used in this project, the following definitions are presented.

Affective - the educational domain which involves the acquisition of attitudes and values - the feeling domain.

Behavioral concepts - the study of the individual and how he/she responds to life stresses, including positive methods of dealing with individual's needs.

Cognitive - the educational domain which involves having knowledge of facts, ideas.

Communication techniques - specific verbal and non-verbal techniques which intend to facilitate interaction and understanding between two people.

Empathy - the ability to listen to, understand, and communicate back one's understanding of another - the ability to "feel with" another person.

Experiential - experiencing the process of activities as opposed to listening to or reading about.

Group counseling - a dynamic interpersonal process focusing on conscious thought and behavior. Involves the therapy functions of permissiveness, orientation to reality, catharsis and mutual trust, caring, understanding, acceptance and support. Therapy functions are created and nurtured through sharing of personal concerns with one's peers and counselor.

Human relations training - a structured approach to the development of empathetic responses in helping persons.

Interpersonal skills - the ability to relate to another person with understanding and awareness.

Reality-orientation - an encounter which focuses on the here and now aspects of one's behavior in order to increase self-understanding and understanding of others.

Therapeutic relationship - a one-to-one goal-directed relationship in which the helper identifies and attempts to meet the needs of the helpee.

Transactional analysis - involves exploration of the three ego states of persons, the Parent, the Adult, and the Child and the feeling states of each to gain awareness of the Self and effective problem-solving methods in dealing with others.

V. LIMITATIONS OF THE STUDY

Several factors intervened to place limitations on the validity and reliability of the project.

The sample undergoing study consisted of thirty-two sophomore nursing students who were self-selected from a population of ninety-three into sections. Among the reasons given for selecting a particular section were geographic location for carpooling, friendships, sequence of the units to be studied and unidentified reasons. The process of self-selection negates the concept of randomization to the degree that it cannot be stated that the study group

was truly representative of the population other than they happen to be sophomore associate degree nursing students.

By nature of the section size and the accessibility of appropriate conditions for carrying out the study, only thirty-two students were available to participate. This was less than a desirable number for a sample, again affecting the ability to generalize beyond application to this particular program.

The group being studied were concurrently involved in a unit of study which necessitated participation in clinical experiences in an inpatient psychiatric unit. The untimely and unexpected closing of the only specifically designated facility in this county one month before the study began resulted in expressed high degrees of anxiety in students needing this experience and in faculty attempting to negotiate alternative experiences which met the requirements of the Florida State Board of Nursing. The many unknowns of being a student in a totally unfamiliar environment located in another county and on a temporary basis limited the generalibility of this study to other programs and to some extent to this program in the future.

Two factors specifically involving the human relations training leaders limited the validity and reliability of the project. Both are faculty members of the nursing program, although not involved academically with the group being studied, and were aware of the experimental nature of the group they were working with. With this knowledge, their behavior was undoubtedly altered toward a successful outcome of the project. The leaders, although

qualified and experienced in various other orientations to group counseling, were attempting their first human relations training program. It was anticipated that their anxiety was an intervening variable and affected the outcome of the study.

VI. BASIC ASSUMPTIONS

For the purpose of this investigation, the following assumptions were made.

In the absence of any evidence to the contrary, ages, sex, and previous group experiences did not significantly influence the results of the study.

There were no available data to indicate any relationship between empathy and level of academic ability. It was therefore assumed that academic grades would not influence the student's ability to increase empathy.

Random selection was made of the available participants to determine the compositions of experimental and control groups. It was assumed that characteristics of the groups were homogenous in the ability to increase empathy.

Recognition of the importance of being able to retrieve data about individual scores on pre and post tests necessitated the use of a code system to identify individual person's results. The assumption was that the potential loss of anonymity of individual test results would not influence the outcome of the study.

All students were exposed to similar inpatient and outpatient

situations during this unit of study. It was assumed that the similarity of experiences was present for all students throughout the project.

VII. PROCEDURES FOR COLLECTING DATA

An investigation of this design necessitated gathering of some data prior to any treatment. After random selection, using a table of random numbers, of four groups of eight students, all students were appraised of the general purpose of the R A-E inventory. The participants were told that certain affective skills of desirable degree were anticipated during this unit of study. To determine the effectiveness of learning experiences designed to assist students to acquire these skills, a baseline measurement was necessary. They were informed that this inventory was not a test which would influence their academic or laboratory grade. Frequent reinforcement of this idea was anticipated as a necessity. All students were administered the R A-E (Recognition Assessment - Empathy), a standardized inventory for the measurement of empathy assessment. The investigator was academically and experientially prepared to administer the instrument and all precautions in the use of a standardized tool were adhered to. In the event further investigation should be undertaken regarding assessment of individuals or some person should not complete the project, students were assigned a code number to be used with any subsequent testing. The participants were further informed that

the deciphering process of the code system was known only to the investigator.

The instrument had been thoroughly studied for validity, reliability and appropriateness.

The R A-E is a product of Learning Designs, Inc., of Toronto, Canada, and as of this time the copyright is pending. It is relatively recent instrument which measures a person's capacity for discriminating the best empathetic response from a given number of responses. At present, its primary uses are those of empathy training and training need assessment. Scoring is relatively simple as a scoring key is provided. The score is determined by awarding points according to the responses selected. Norms are available for various occupational groups and students in occupation curricula. Nursing and nursing student norms are included in the administrator's manual. The total number of persons comprising the normative group was 1000 which is adequate for the newness of the instrument.

The reliability of an instrument was very important in this study as all participants in the pretesting were involved in post-testing six weeks later using the same instrument. A potential weakness in the use of the R A-E was the lack of reliability data available. Test and retest correlations in 34 undergraduates with a two-week intervening interval yielded a correlation co-efficient (r) of .77. The investigator was aware of the very small sample used for correlation evidence and recognized that the reliability

was established for a lesser time interval than will be allowed in this study. Aside from these two criticisms, the correlation coefficient (r) of .77 was satisfactory.

The four groups were then treated in the following manner. The two control groups were involved in group counseling sessions for one hour per week for six weeks. The group leaders were experientially competent group leaders. One was oriented toward the transactional analysis approach to group behavior. The expertise of the other was toward reality-orientation in the here and now.

The two experimental groups underwent human relations training for the same time period. The emphasis was on learning empathetic responses through a series of experiences using role-playing, empathetic reinforcement of the group leaders, simulated patient-nurse interactions and any other methods deemed appropriate by the group leaders.

Scores on the pre-test were utilized to determine means and standard deviations of each of the four groups. The means were analyzed for significant differences among the four groups and the data obtained was held for comparison to post-test scores.

At the termination of the treatment program, the participants were post-tested using the same instrument and under the same conditions as the pre-test. The data obtained was compiled with the first set of data and put into forms so that it could be treated statistically.

VIII. PROCEDURES FOR THE TREATMENT OF DATA

In an attempt to determine whether or not there were differences in empathy scores as measured by the R A-E, as the result of different treatment methods, thirty-two students were divided into four groups of eight students each. Two groups participated in human relations training and the other two in group counseling sessions. Each group met once a week for six weeks, after pre-testing. At the conclusion of the treatment program they were post-tested. The data consisted of eight sets of individual scores.

The null hypotheses were stated: The eight sets of scores do not differ significantly from one another. The alternative hypothesis: The eight sets of scores do differ significantly from one another. The second null hypothesis was stated: Individual group scores do not differ significantly from pre to post-testing. The second alternative hypothesis: Individual group scores do differ significantly from pre to post-testing.

Analysis of variance was selected as the statistical method appropriate to determine if there was a significant difference among the means of the eight sets of scores. The desired level of significance was established at 0.05.

The degrees of freedom were calculated for between sets and within sets and the critical value of F obtained through the table of Values of the F Distribution. The critical value of F for 7 and 56 degrees of freedom at 0.05 level of significance was 3.3128. The first hypothesis would be rejected if the cal-

culated value of F exceeded the critical value of F. The first alternative hypothesis would be accepted.

Analysis of variance yields only the information that significant differences do or do not exist between or among any of the means being studied. Therefore, if no significant difference had been obtained, the treatment of the data would have been terminated.

In the event the first hypothesis had been rejected, the data was further examined to determine where the differences existed. t-tests were run on all means to provide this information. If the calculated value of t were larger than the critical value of t, which is 2.145 at 0.05 level of significance (d.f=14), the second null hypothesis would have been rejected.

Multiple t-tests between means also supported or refuted the assumption that the groups were homogenous in the possession of empathy at the time of pre-testing.

IX. RESULTS

Data Resulting from the Study.

The scores, means, and standard deviations of the thirty-two students involved in pre and post-testing as experimental and control groups are presented in Table I, page 16

A diagrammatic summary of the mean scores for experimental and control groups on pre and post-testing is included in Figure 1.

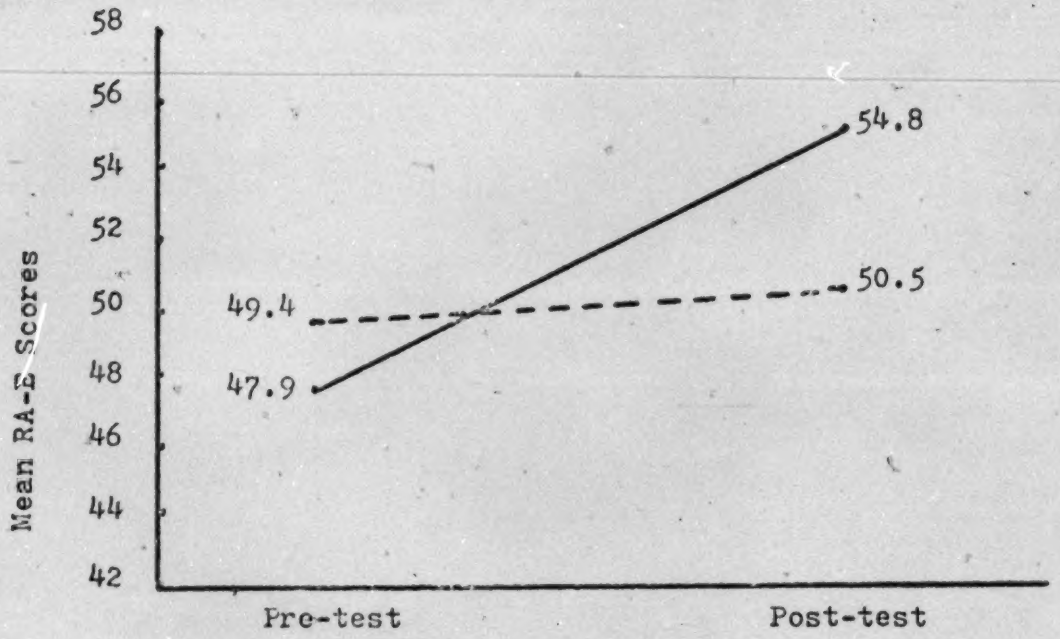

Figure 1 Mean RA-E Scores on Pre-tests and Post-tests for Experimental Groups and Control Groups

_____ Experimental Groups

-------- Control Groups

Table I Pre and Post-test RA-E Scores For Experimental and Control Groups

	Pre-test				Post-test			
	Experimental Groups		Control Groups		Experimental Groups		Control Groups	
	Ia	IIa	IIIa	IVa	Ib	IIb	IIIb	IVb
	36	44	54	32	52	52	42	54
	38	60	52	48	54	62	52	42
	50	54	54	44	54	52	52	46
	60	46	44	54	60	54	50	54
	50	44	52	60	60	50	52	50
	36	54	50	50	52	62	48	54
	46	54	46	54	56	62	52	60
	48	60	50	46	46	50	60	40
ξX_s	364	416	402	388	432	444	408	400
$\overline{X_s}$	45.5	52	50.25	48.5	54	55.5	51	50
s	7.89	6.16	3.38	7.86	4.79	5.17	3.81	6.60

N=32

The result of testing hypothesis one concerning significant differences among the eight sets of scores yielded a statistically significant F-ratio, Table II.

Table II Analysis of Variance of RA-E Change Scores from Pre to Post-test for Experimental and Control Groups

Components	Sum of Squares	Degrees of Freedom	Mean Square	F-ratio	Critical Value of F (.05 level)
Between Sets	544.9384	7	77.8483	15.4645*	3.3128 (7.56 df)
Within Sets	281.9063	56	5.0340		
Total	826.8447	63			

* Value significant beyond the 0.05 level.

t-tests between all means showed significant differences between pre and post-test means for Experimental Group A. Also significant is the difference between pre-test mean for Experimental Group A and post-test mean for Experimental Group B. No significant differences existed in the means of the groups at pre-testing, Table III.

Table III Results of t-tests Between All Means

	Ia	IIa	IIIa	IVa	Ib	IIb	IIIb	IVb
Ia	—	1.8436	1.5677	.7653	2.5602*	3.0211*	1.7915	1.2465
IIa	—	—	.7028	.9915	.7249	1.2310	.3906	.6269
IIIa	—	—	—	.5788	1.8116	2.4082	.4167	.0954
IVa	—	—	—	—	1.6901	2.1045	.8095	.4134
Ib	—	—	—	—	—	.6019	1.3864	1.3873
IIb	—	—	—	—	—	—	1.9819	1.8547
IIIb	—	—	—	—	—	—	—	.3712
IVb	—	—	—	—	—	—	—	—

*Sign. 0.05 = 2.145 df = 14

X. SIGNIFICANCE OF THE DATA AND CONCLUSIONS

While the search for educational experiences to increase empathy in nursing students continues, one possible solution to the problem lies in the use of structured human relations training. The most important implication derived from this study was the validation of the assumption that the experimental method of increasing empathy through human relations training was effective in one of the two experimental groups. The significant F-ratio obtained through an analysis of variance and subsequent significant t-tests of experimental group A from pre to post-test indicates that an increase in empathetic skills did in fact take place. This fact deserves careful consideration in terms of the possible incorporation of human relations training into the Associate Degree Nursing Program at Daytona Beach Community College.

That significant change occurred in the short period of time used for human relations training, only six hours of class time, makes the practicality of such a program seem feasible.

Another important implication is based on the evidence that empathy levels can be assessed through a relatively simple process. With this knowledge and the quality of empathy deemed important by nursing faculty, educational objectives can be written for increasing empathy and appropriate learning experiences be provided to meet the objectives.

The persons conducting the human relations training groups

were experienced counselors with no specific training in this kind of program. Since most nursing faculty at Daytona Beach Community College have had formal or informal training in counseling, they should be able to with minimal instruction conduct training sessions effectively with nursing students. This would eliminate the need for utilizing expensive outside sources of help.

The question of intervening variable influencing the outcome of the study can be answered by the fact that all students were exposed to and did participate in similar experiences both in in-patient and out-patient settings.

XI. RESIDUAL FINDINGS

Four individual students in the experimental groups either maintained the same score or obtained lower scores from pre to post-test. While the individual scores were not studied for significant differences there are implications that the individual be evaluated in terms of increasing empathy and a more individualized program be developed.

The normative values on the RA-E for second year nursing students are reported as the mean = 45.3 and s of 8.7 (N=48)[9]. Although not studied for significant differences, all pre and post-test means of both experimental and control groups were higher than the norm. This raises questions about factors operating earlier in a student's career at Daytona Beach Community College.

XII. RECOMMENDATIONS

The statistically significant results of the study lead to the following recommendations:

1. That human relations training be incorporated into the basic curriculum of the Associate Degree Nursing Program at Daytona Beach Community College.
2. That nursing faculty with counseling skills become trained to conduct human relations training for future groups of nursing students.
3. That an increase in the amount of time to twelve hours be allotted for training sessions.
4. That follow-up information regarding the results of training be obtained after six months and one year to determine if gains persisted.

FOOTNOTES

1. Eli Bernzweig, "Liability for Malpractice. . . its Role in Nursing Education," The Journal of Nursing Education (1969), Vol. 8, No. 2, pp. 33-40.

2. Celeste A. Dye, "Self Concept, Anxiety, and Group Participation as Affected by Human Relations Training." Nursing Research (1974), Vol. 23, No. 4, pp. 301-306.

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